



May 21, 2007

David Ledger  
c/o Carlsmith Ball LLP  
Bank of Hawaii Building, Suite 401  
134 West Soledad Avenue  
Hagåtña, Guam 96932

**Fejeran vs. Aviation Services (CNMI), Ltd.**

Dear Mr. Ledger:

I have reviewed the file material provided by your office pertaining to the above referenced matter. In addition, my Associate Engineer, Ms. Joellen Gill, inspected the subject aircraft and its associated ladder wherein she took a variety of measurements and photographs, as well as digital videos. The purpose of this letter is to summarize my opinions, as well as provide a brief discussion of their underlying foundation.

I base my findings and opinions: on my training, experience, and expertise in the field of Human Factors Engineering; the photographs, videos, observations, and measurements made at the time of Ms. Gill's site inspection; and the various file material pertaining to this case that your office provided. The material I reviewed that was specific to the facts of this case included:

1. Dr. Perez's Report;
2. Defendant's Second Supplemental Responses to Plaintiff's First Discovery Requests;
3. Defendant's Third Supplemental Rule 26 Disclosures;
4. Miscellaneous Shorts SD3-60 Maintenance Protocols;
5. Miscellaneous Communications with your office.

This report is based on the information that is available to date. It is my understanding that discovery is continuing in this matter, thus I reserve the right to further expand and/or amend my opinions and their bases if additional information relevant to my area of expertise becomes available.

Attached as an exhibit to this report is a copy of my CV that highlights my training, experience, and expertise as it pertains to safety and risk management, along with a list of my publications. Also attached is a listing of my sworn testimony for the past 5 years. Please note that my fees for work on this matter, including trial, is \$300/hour plus expenses; deposition fees are \$350/hour, unless paid in advance, with a minimum charge of \$1,000. Commercial travel time is billed at half-rate.

I have a Ph.D. in Mechanical Engineering – Human Factors Option; I have 30 years of experience in Human Factors with my emphasis being in safety and risk management. I have done theoretical work in the area of safety, as well as provided consulting services to private industry and businesses in the field of safety and risk management. As noted in my CV, I am board certified in Human Factors and I am a certified Tribometrist.

## OPINIONS

1. Inadequate or defective maintenance was not a contributing factor to Mr. Fejeran's alleged stairway fall accident.

There is no evidence to support any allegation that the subject stairway and its associated appurtenances were not maintained consistent with the requirements as set forth by the aircraft manufacturer (i.e. Shorts). It is noted that Mr. Fejeran has alleged that the handrail somehow "wobbled" as he was descending the stairway. However, it is noted that Mr. Fejeran's expert Dr. Perez measured a total deflection of only  $\frac{1}{2}$  inch (i.e. only a  $\frac{1}{4}$  inch deviation on either side of the center line of the handrail). First and foremost, such an alleged deviation does not violate Shorts maintenance specifications. In addition, such a deviation is inconsequential and not likely to induce a loss of balance. Lastly, with all due respect to Mr. Fejeran, it is questionable how such a deviation could occur when other passenger(s) that were disembarking the plane were likely holding onto the handrail at the same time this alleged deflection occurred.

2. Improper deployment of the subject stairway was not a contributing factor to Mr. Fejeran's alleged stairway fall accident.

There is no evidence to support any allegation that the subject stairway was not deployed in a manner consistent with the manufacturer's specifications. In fact, no such allegation has been made by Mr. Fejeran, nor his expert Dr. Perez.

3. The manner in which Aviation Services was utilizing the subject stairway was not a contributing factor to Mr. Fejeran's alleged stairway fall accident.

There is no evidence to support any allegation that the subject stairway was not utilized in a manner consistent with the manufacturer's intention for the routine disembarkation from the aircraft. In fact, no such allegation has been made by Mr. Fejeran, nor his expert Dr. Perez.

4. The design of the subject stairway is typical for built-in or fixed stairways in commuter aircraft.

There is no evidence to support any allegation that the general design characteristics of the subject stairway somehow contributed to Mr. Fejeran's alleged stairway fall accident. The general design configuration is common to that of most commuter aircraft with built- in fixed stairways.

It is noted that Dr. Perez is critical of the variation in the elevation between the last actual stair tread and the tarmac, opining that this increased variation was "a substantial factor" in Mr. Fejeran's alleged fall. However, the variation between the last tread and the tarmac is not proximate to Mr. Fejeran's alleged fall in that in his answers to interrogatories Mr. Fejeran claims that he was about halfway down the stairway when the handrail allegedly wobbled thereby causing him to lose his balance and fall. In other words, according to Mr. Fejeran, his loss of balance allegedly occurred before this variation and it was induced by the handrail.

5. In his report Dr. Perez claims that the 1985 Uniform Building Code (UBC) "requires" or "mandates" certain design parameters for stairways; however, Dr. Perez's claims are misleading and/or factually erroneous.

For example, Dr. Perez claims that the 1985 UBC "requires" riser heights to be no more than 7 inches. However, for many years both pre 1985, as well as post 1985, the UBC had permitted riser heights up to 8 inches (i.e. see section 3306.(c)1). Dr. Perez also claims that the 1985 UBC "requires" tread depths "to be greater than 11 inches". To be more precise, the 1985 UBC, as well as those for many years before and after, specifically permit tread depths of 11 inches under all circumstances (i.e. see Section 3306.(c)); in fact, in some circumstances the UBC has routinely, over the years, permitted tread depths as shallow as 9 inches (i.e. see Section 3306.(c)1).

Dr. Perez also falsely claims that the 1985 UBC "mandates" handrails on both sides of a stairway and a 12 horizontal extension of such handrails. However, the 1985 UBC, as well as the UBC for numerous years before and after 1985, permits either no handrail or a handrail on a single side under a variety of conditions. It should be noted that given the setting for the subject stairway (i.e. embarkation/d disembarkation of a commercial aircraft) there is no reason to expect "two-way" traffic on the subject stairway; as such, a handrail on one side only is not unreasonable or unsafe. Of course, it is noted that there is a handrail on both sides on the upper portion of the stairway. It is also noted that the 1985 UBC requires horizontal extensions to be only 6 inches, not 12 inches as alleged by Dr. Perez; in addition, such extensions are not universally required (i.e. see Section 3306.(j)). Lastly, the lack of any such horizontal extension is not proximate to the alleged falling accident in that Mr. Fejeran claims that he was only partway down the stairway and he was holding the handrail when he allegedly lost his balance and fell.

6. Mr. Fejeran's alleged stairway fall accident was a result of his own interaction with the design of the subject stairway and not due to any atypical design/condition of the subject stairway, nor due to any unexpected or unusual condition or event.

Mr. Fejeran's alleged falling accident occurred as he was descending the stairway on the subject aircraft. As discussed above: (1) the overall condition of the

subject stairway was in compliance with the manufacturer's maintenance specifications; (2) the deployment of the subject stairway was in compliance with the manufacturer's specifications; (3) the subject stairway was deployed in a manner consistent with the manufacturer's recommendations; and (4) there was nothing atypical associated with the design/configuration of the subject stairway.

In short, the subject stairway that Mr. Fejeran encountered at the time of his alleged fall was neither unusual nor unexpected. Rather, the design, condition, operational protocol, and so forth were all consistent with the normal operation of any comparable such aircraft. Any abnormality in Mr. Fejeran's interaction with the subject stairway was due to his own personal interaction with the subject stairway and not due to any abnormality in the design, condition, or method of use of the subject stairway.

Please let me know if you have any questions or if I can be of any further assistance. I look forward to continuing to work with you in this matter.

Sincerely,



Richard Gill, Ph.D., CHFP, CXLT  
President and Chief Scientist